

09.30-10.15

Policy, regulation and markets point to energy convergence – what does that mean for businesses





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Bringing Energy
Together

Combined Heat & Power
District Heating & Cooling
Demand Side Services

The energy transition and business users

Tim Rotheray
Director

April 2018





The Clean Growth Strategy

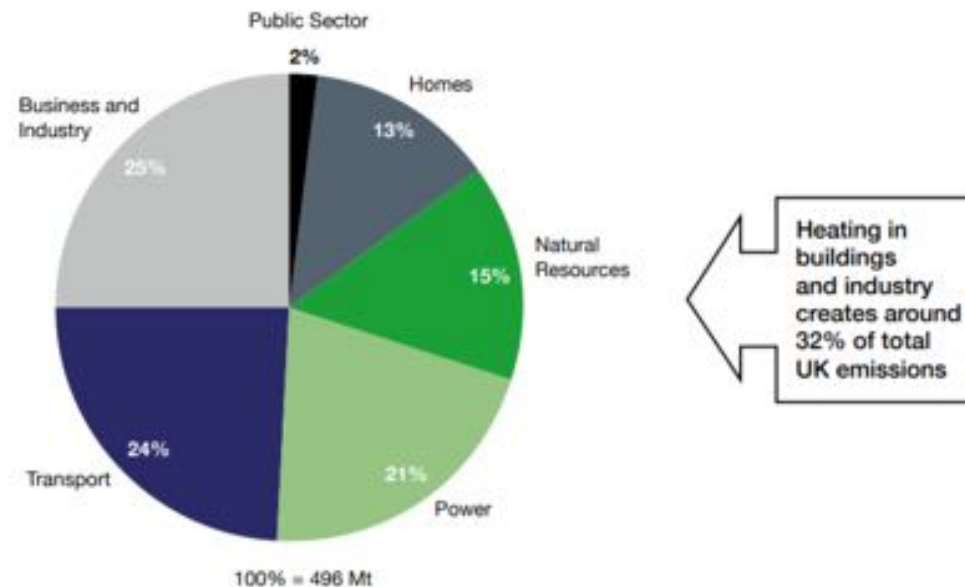
Leading the way to
a low carbon future

Bringing Energy
Together



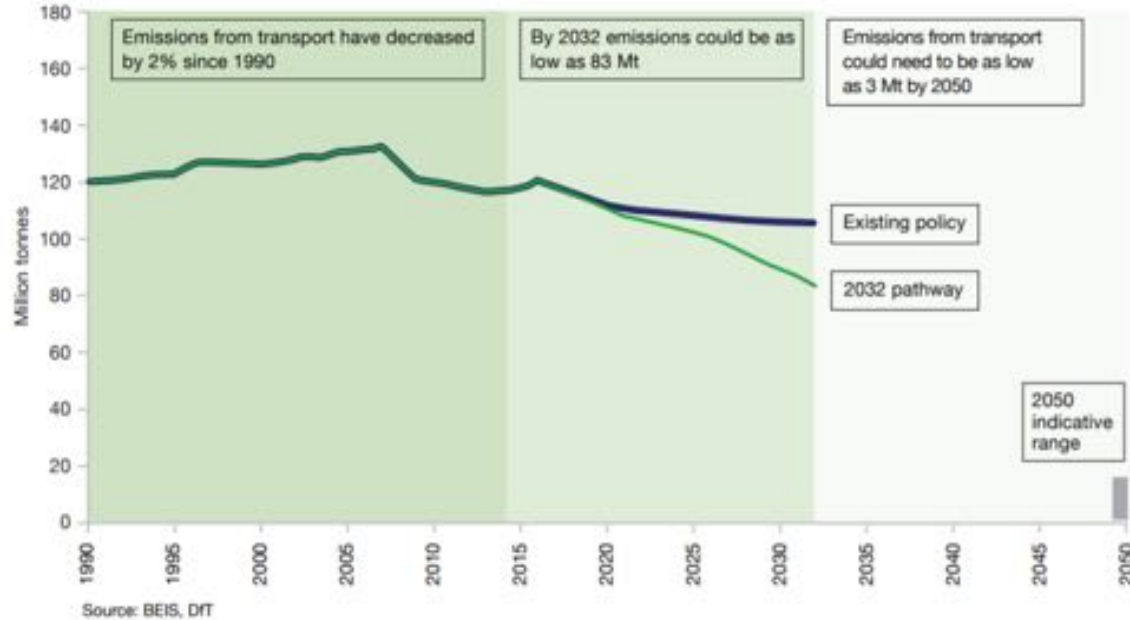
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Figure 2: UK emissions by sector, 2015²⁷

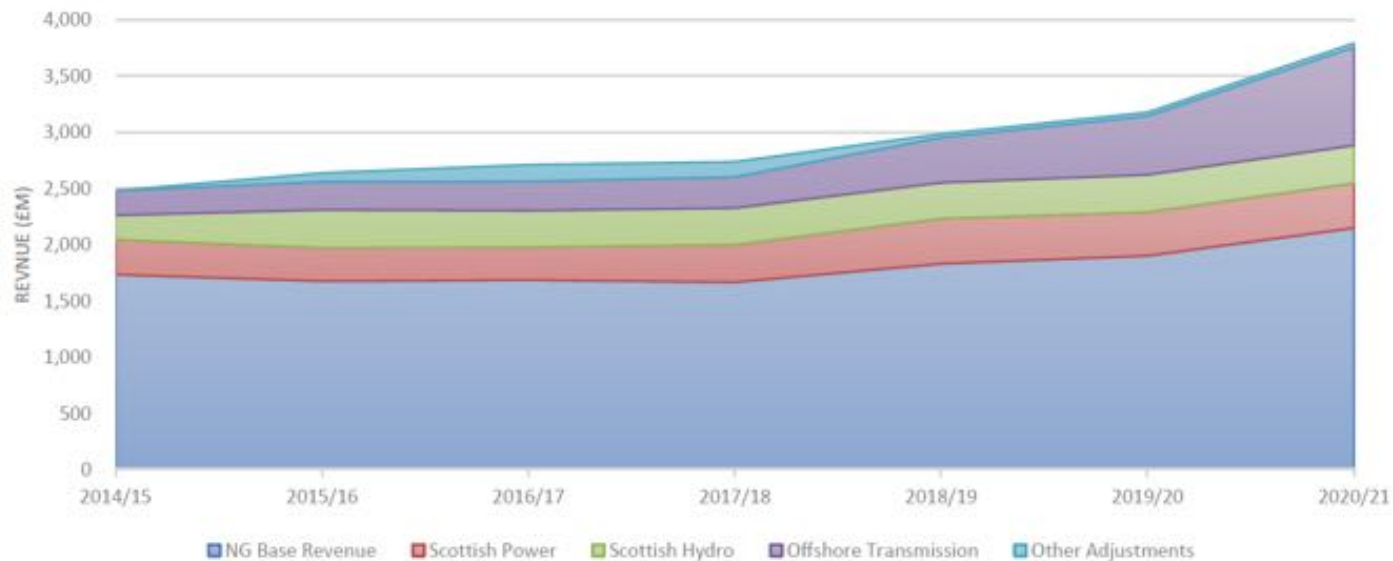


Source: BEIS

Figure 22: Actual and projected emissions in transport, taking into account the clean growth pathway, 1990-2050



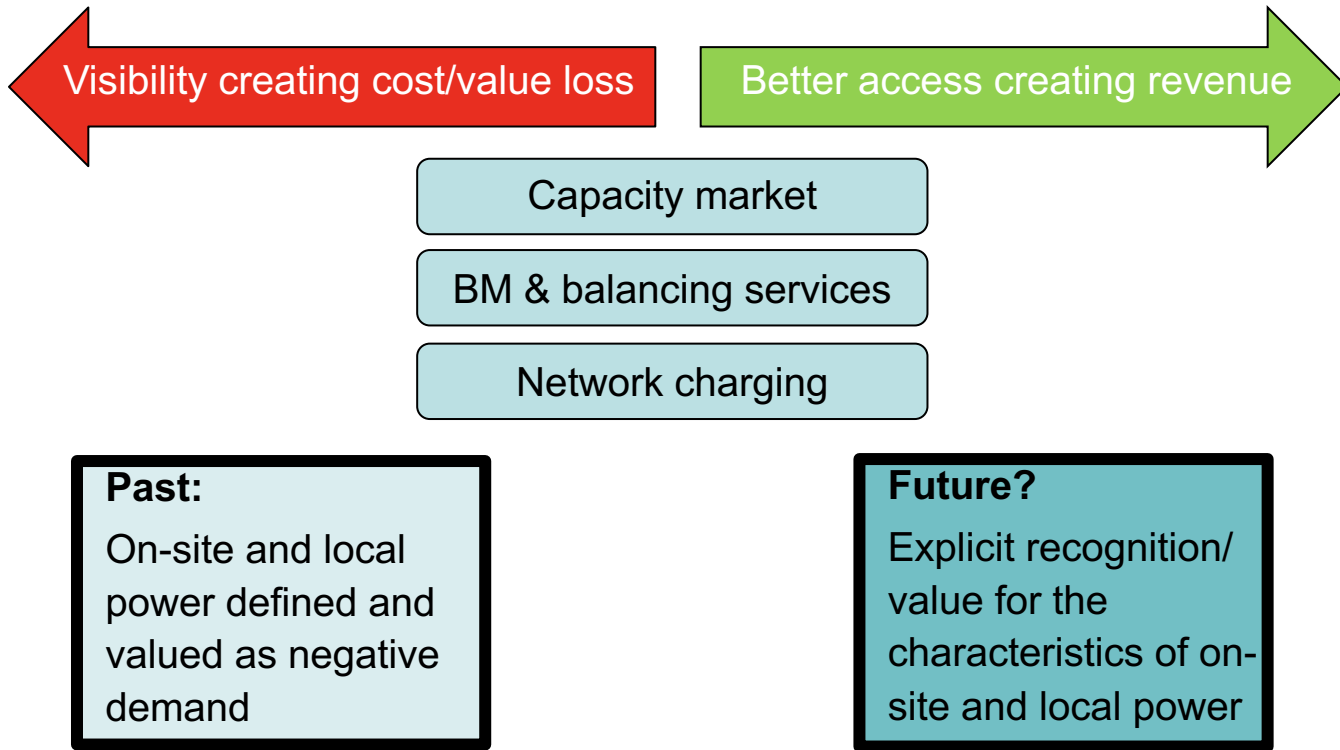
TNUoS Target Revenue (Breakdown)



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Together



Period of fundamental transition





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Together



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Thank you

The Association for
Decentralised Energy



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Combined Heat & Power
District Heating & Cooling
Demand Side Services

@trotheray
@theADEuk



power responsive

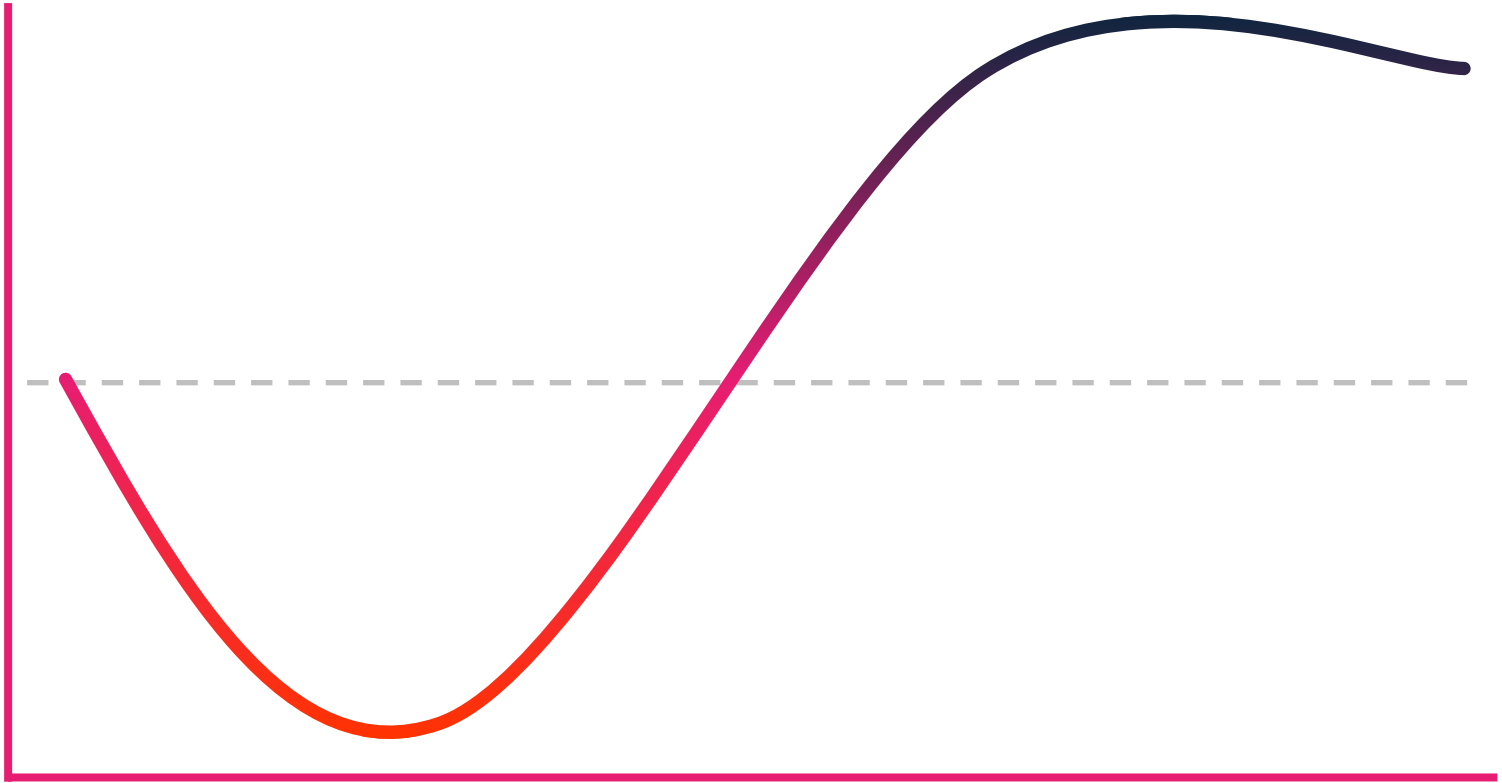
Colm Murphy

Head of Business Development
National Grid System Operator

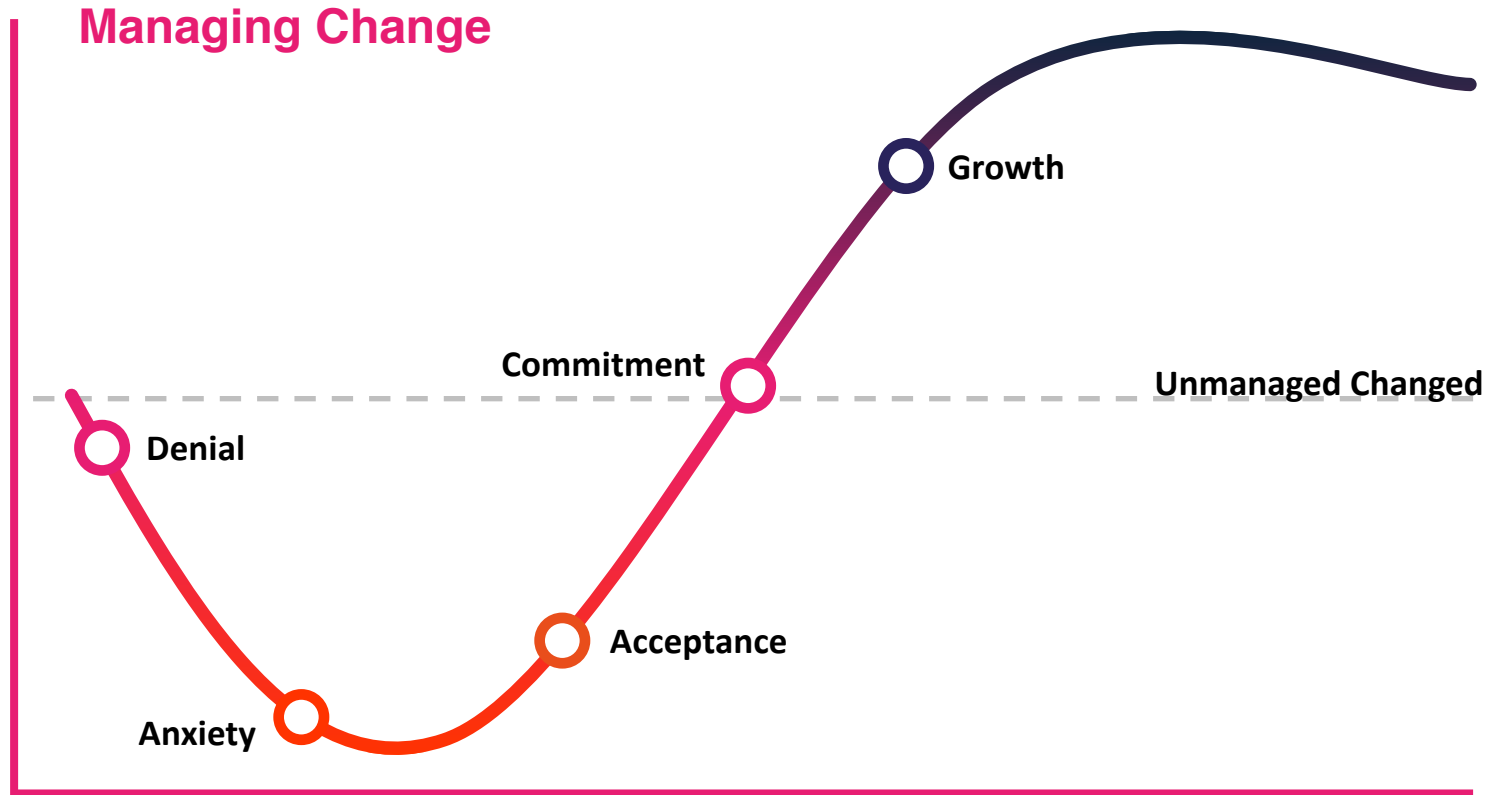
17th April 2018
The Energyst



What does this line mean to the ESO?



What does this line mean to the ESO?



The changing system



nationalgrid
(Electricity System Operator)



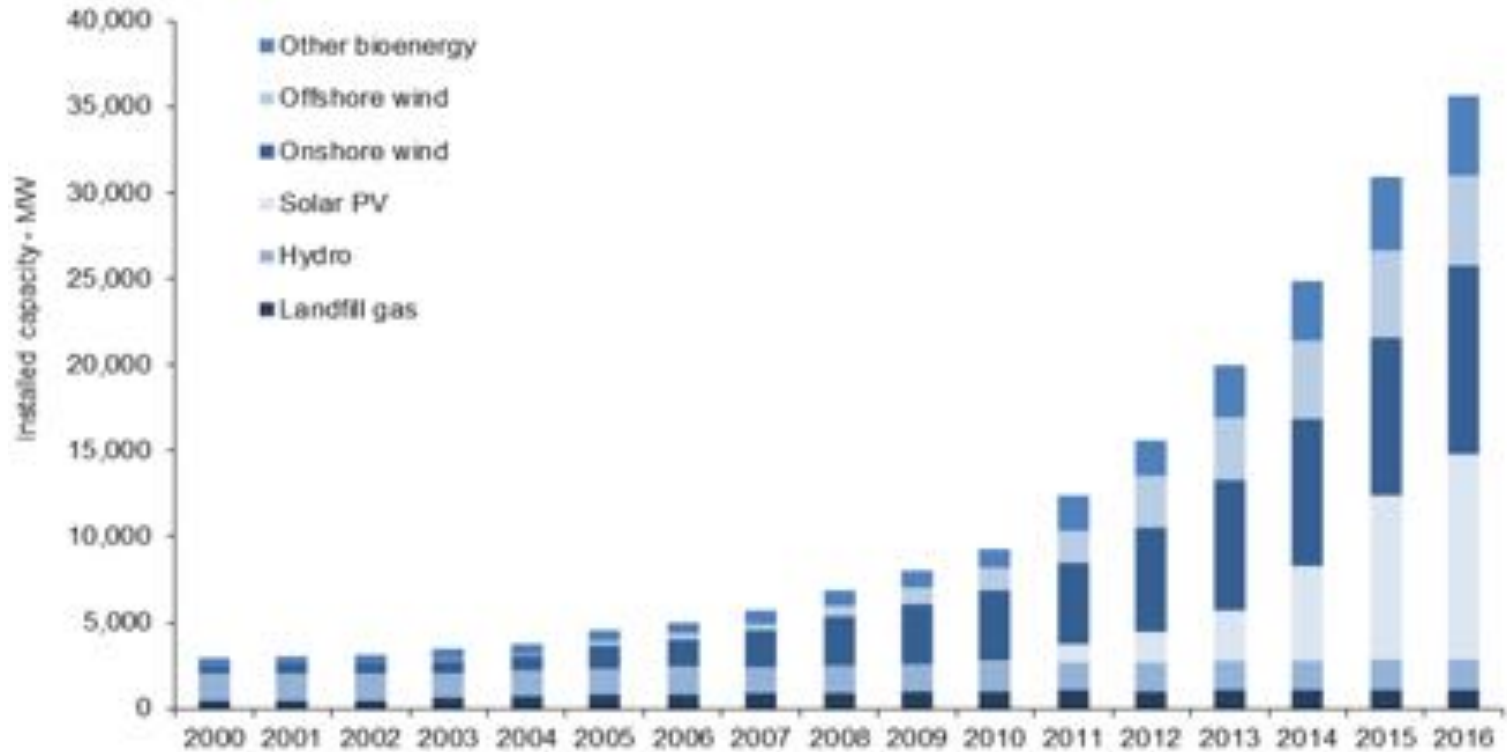
Push Factors

- Policy
- Regulation
- Decarbonisation

Pull Factors

- Digitalisation
- Emerging Technologies

Rapid Rise in Renewables



Summer of Firsts

25-26 Mar

**UK breaks solar energy
record on sunny March
weekend**

26 May

**Solar power sets
new electricity
record supplying
a quarter of UK
demand**

11 June

**Record levels of
green energy in
UK create strange
new world for
generators**

**British power generation
achieves first ever coal-free day**

21 Apr

**Renewables
provide more
than half UK
electricity for
first time**

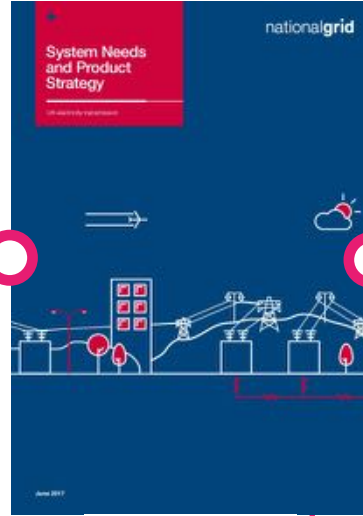
7 June



Planning for the Future



ESO Forward Plan



SNaPS

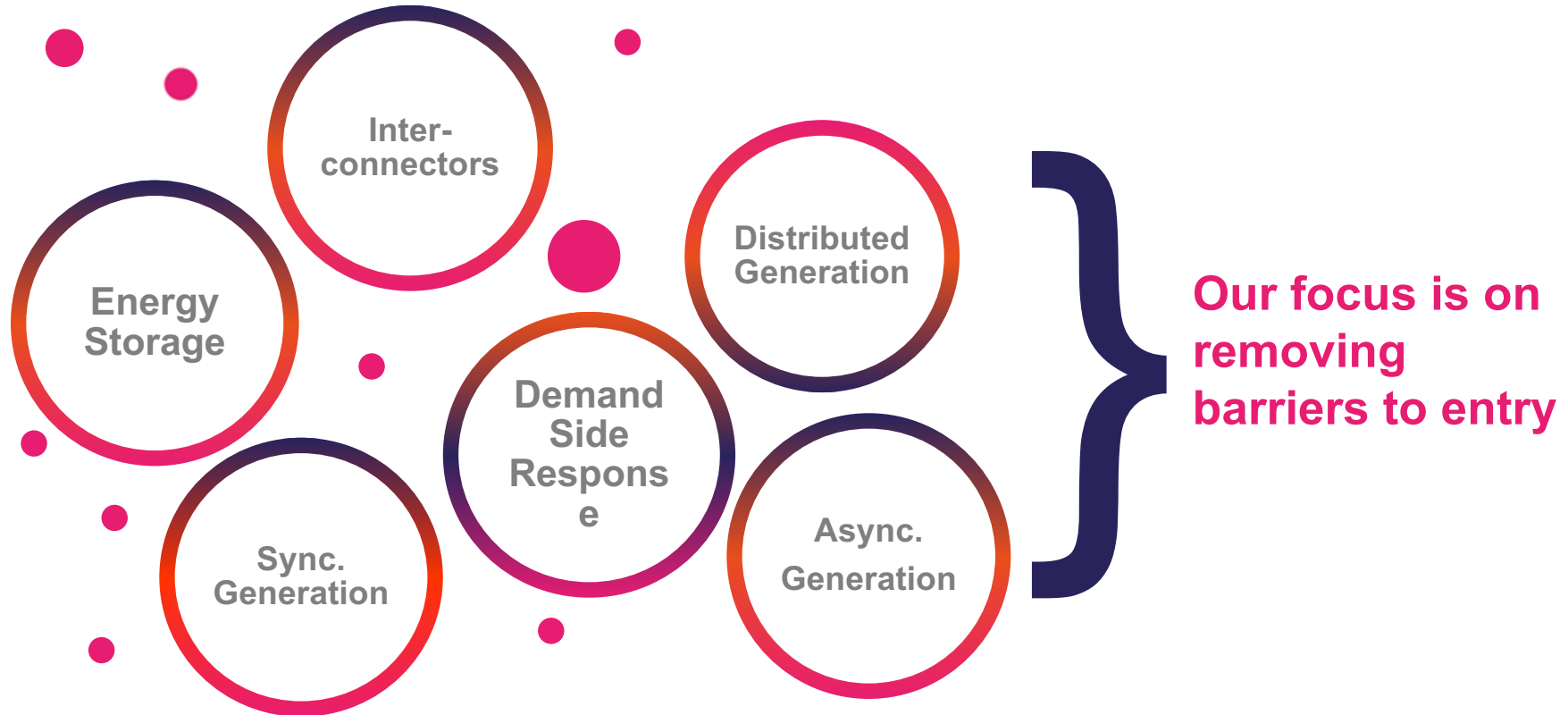


Product Roadmap
Reserve & Response

Future Product Roadmaps

- Black-start
- Thermal Constraint Management
- Reactive Power

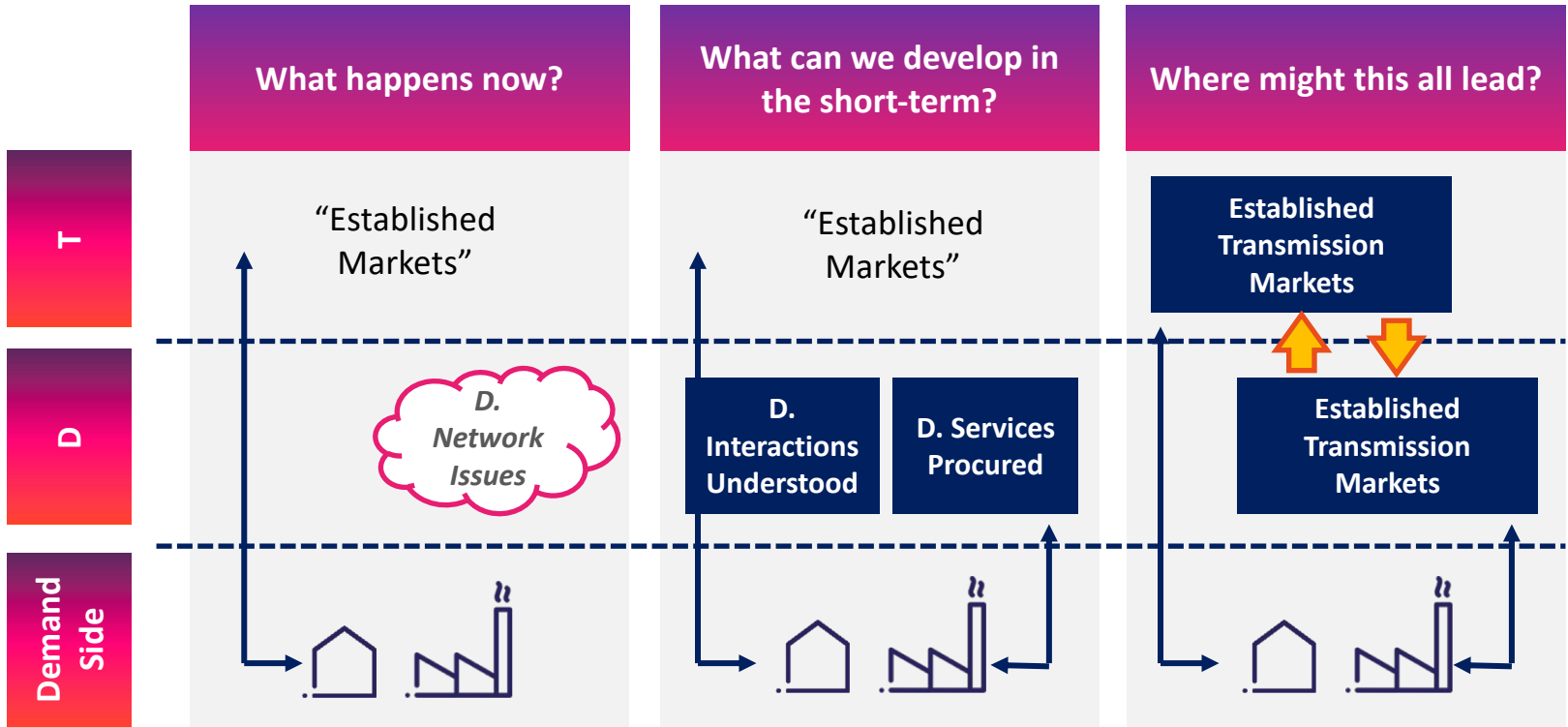
Improving our toolkit



Opportunities whatever your technology

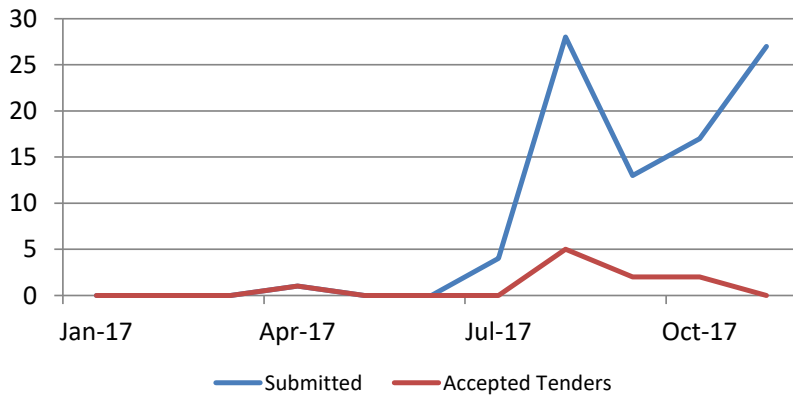


Developing the Transmission / Distribution Interface

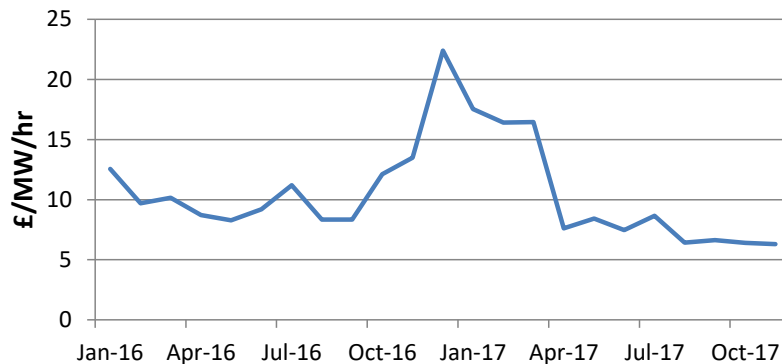


Participation in FFR has increased substantially




Number of Long-term Tenders



Average Submitted FFR Tender Price



Power Responsive – Get Involved

-  **Continued Customer Engagement**
-  **Increase Confidence in Flexibility**
-  **Evolution of Flexibility Markets**



Visit the Power Responsive Team on:
Stand BS46



Energy convergence

Robert Williams

General Manager, Procurement, BT
and
Trainer, Energy Institute

2015

CLIMATE
WEEK
NYC

BT announces goal for 100% renewable electricity worldwide by 2020 at CWNYC



BT's climate action journey



2015

UN Global Goals launched and BT maps how its work supports them



2016

BT investigates what a 1.5°C global carbon target would mean for its business



2008

BT announces goal to cut its net global carbon intensity by 80% compared to 1996/97 (achieved 2016)

2012

BT announces ambition to purchase 100% renewable electricity in UK (achieved)

Meaningful goals

Using Science Based Targets provides guidance for setting clear, measurable goals

#go100percent

Using renewable energy has a big impact and drives the creation of a global market for renewable energy

2017

BT achieves eight consecutive years of energy reduction



2016

Newsweek ranks BT as the third greenest company in the world

2013

BT introduces ambition to help customers cut their carbon emissions by at least three times its own end-to-end carbon impact



2015

BT launches web-based Sustainability Assessor Tool for suppliers



2012

BT publishes world's first communications services carbon footprint for Olympic and Paralympic Games

Holistic thinking

Measuring our end-to-end carbon impact and using the Global Goals as a framework, encourages collaboration, helps effective planning and demonstrates the difference our work makes in the world

2016

BT tops Carbon Clear's annual ranking of carbon reporting performance of FTSE 100 companies for third year in a row



RE 100

2014

BT is a founding member of the campaign for leading companies committed to using renewable energy

2014

Introducing spring out feet on BT Home Hub helps its 'through letter box' design save customers' carbon



2013

BT introduces climate action policies for suppliers



2011

BT Home Hub is among the first products to have its carbon footprint published to the GHG Protocol Product Standard



2012

Better Future Supplier Forum launches to share environmental best practice and encourage sustainable innovation across BT's supply chain

1992

BT measures corporate carbon footprint and sets its first carbon reduction targets



Advanced Energy Manager modules; convergence of energy management and core business

- Energy fundamentals
- Energy law
- Monitoring and targeting
- Project costs
- Energy procurement
- HVAC
- Renewables
- CHP
- Behaviour change
- Energy efficiency in buildings
- Compressed air
- Refrigeration
- Lighting
- Process heat
- Implementing and Auditing ISO 50001

